## MONTHLY WEATHER REVIEW.

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The Monthly Weather Review summarizes the current manuscript data received from about 3,500 land stations in the United States and about 1,250 ocean vessels; it also gives the general results of the study of daily weather maps based on telegrams or cablegrams from about 200 North American and 40 European, Asiatic, and oceanic stations.

The hearty interest shown by all observers and correspon-

dents is gratefully recognized.

Acknowledgment is also made of the specific cooperation of the following chiefs of independent, local, or governmental services: R. F. Stupart, Esq., Director of the Meteorological Service of the Dominion of Canada; Señor Manuel E. Pastrana, Director of the Central Meteorological and Magnetic Observatory of Mexico; Camilo A. Gonzales, Director-General of Mexican Telegraphs; Capt. I. S. Kimball, General Superintendent of the United States Life-Saving Service; Commandant Francisco S. Chaves, Director of the Meteorological Service of the Azores, Ponta Delgada, St. Michaels, Azores; W. N. Shaw, Esq., Director Meteorological Office, London; Maxwell Hall, Esq., Govern-

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As far as practicable the time of the seventy-fifth meridian is used in the text of the Monthly Weather Review.

Barometric pressures, both at land stations and on ocean vessels, whether station pressures or sea-level pressures, are reduced, or assumed to be reduced, to standard gravity, as well as corrected for all instrumental peculiarities, so that they express pressure in the standard international system of measures, namely, by the height of an equivalent column of mercury at 32° Fahrenheit, under the standard force, i. e., apparent gravity at sea level and latitude 45°.

## FORECASTS AND WARNINGS.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

Unseasonably low temperature in middle and eastern districts of the United States, with frost in the interior of the Gulf and South Atlantic States and snow in the upper Ohio Valley, marked the opening of May. Over the Azores, where the barometer had been exceptionally low during the last five days of April, pressure continued below 30.00 inches until May 9. In the Iceland area, where pressure had been high during the last half of April, the barometer continued above

30.00 inches until May 6.

A depression that occupied the Lake Superior region on the 1st advanced over Canada and the Atlantic and reached the British Isles on the 6th, its passage over the ocean being attended by strong gales. A depression that appeared on the north Pacific coast on the 1st moved over the Plateau and Rocky Mountain districts during the 2d and 3d, drifted slowly over the central valleys from the 4th to the 7th, occupied the Atlantic coast from the 9th to the 11th, and reached the British Isles on the 14th. Depressions that leave the American coast at this season of the year usually advance toward and merge into the great Iceland low area. The southern course of the two depressions, here referred to, was due to the prevalence of abnormally high pressure over Iceland and persistent low pressure over the Azores. The depressions, advancing along the line of least resistance, were deflected to the southward of the usual path.

The depression that crost the American Continent during the first decade of the month was attended by exceptionally heavy rains in localities in the Gulf and Atlantic States, and the middle Mississippi and Ohio valleys, and was followed by snow and freezing temperature in the middle and northern Rocky Mountain districts and thence over the northern portion of the Lake region. Its slow advance was apparently due to the persistent and abnormal distribution of atmospheric pressure over the Atlantic and western Europe above referred to.

The Cheyenne Tribune, of May 4, 1908, has the following editorial concerning a forecast issued at Washington, D. C., May 2, for the following week:

The weather man down at Washington has made an excellent guess. Saturday he gave to the Associated Press the following:

The rains of the week beginning Sunday, May 3, will cover the principal agricultural districts from Canada to the Gulf of Mexico. From May 3 to 5 an area of general rains will advance from the Pacific to the Atlantic coasts, reaching the Atlantic coast Monday night or Tuesday.

The storm Cheyenne is now enjoying arrived promptly as scheduled and is worth more to Laramie County than can be measured in dollars and cents. The precipitation is probably general over Wyoming.

The rains referred to broke a drought in Wyoming and eastern Colorado that was becoming serious.

A barometric depression that apparently crost the southern California coast on the 10th and 11th advanced slowly eastward over the Plateau and Rocky Mountain districts and northeastward over the Great Plains and north-central valleys from the 11th to the 15th, attended by exceptionally heavy rains and severe local storms in Louisiana and Arkansas on the 12th, and in Louisiana, eastern Texas, and Arkansas on the 13th. On these dates also heavy rains fell in parts of Nebraska, Missouri, Iowa, Illinois, and Indiana.

From the 13th to 15th an area of high barometer, attended by unseasonably cool weather, advanced from Manitoba to the north Atlantic coast, and the barometer continued high in the northeast until the 19th, when an area of low barometer that appeared over Nevada on the 14th reached that region.

The week beginning Sunday, May 17, opened with high barometric pressure over southern and low pressure in northern latitudes of the Northern Hemisphere, a distribution that indicated for the following seven days temperature about or above the seasonal average with showery weather over the middle and northern sections and settled fair weather over the Southeastern States of the United States. A justified forecast to this effect was issued on the 18th.

On the 19th and 20th a barometric depression covered the Rocky Mountain districts and low pressure, with extensive areas of local rains and thunderstorms, covered the western interior river valleys during a great portion of the third decade of the month. In the Southwestern States the rains of this